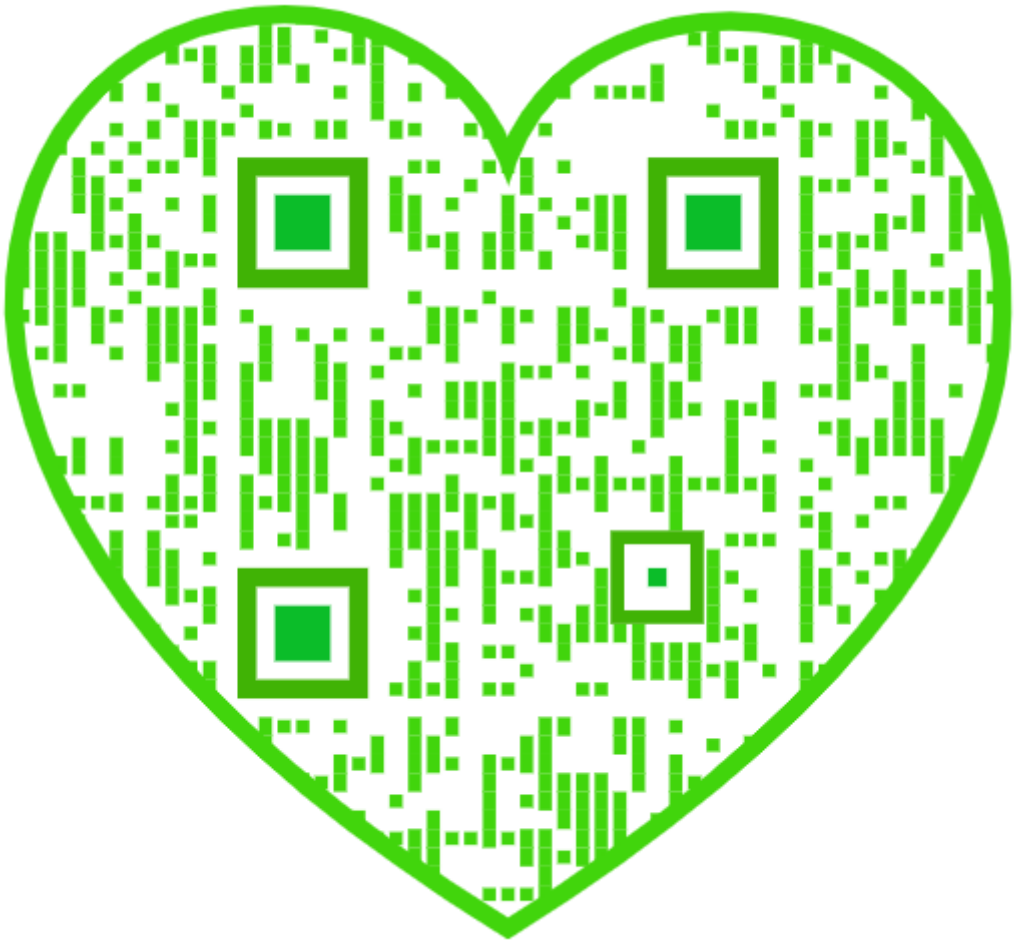
Master in Artificial Intelligence

Collaboration III



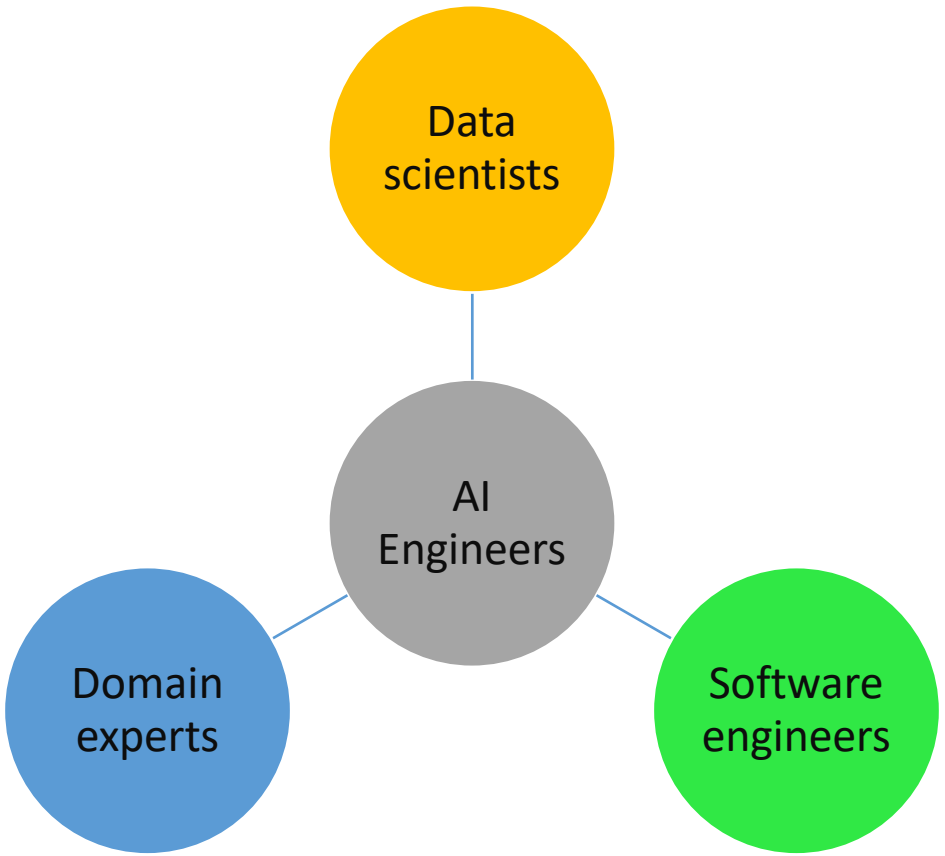
Purpose

The purpose of the section is to help you learn how to collaborate with data scientists, software engineers, and domain experts to become a Successful Artificial Intelligence (AI) Engineer

At the end of this lecture, you will learn the following

- **An example of collaborating with data scientists, software engineers, and domain experts to develop comprehensive AI solutions that address real-world problems effectively**

An example of how to collaborate with data scientists, software engineers, and domain experts



Develop comprehensive AI solutions

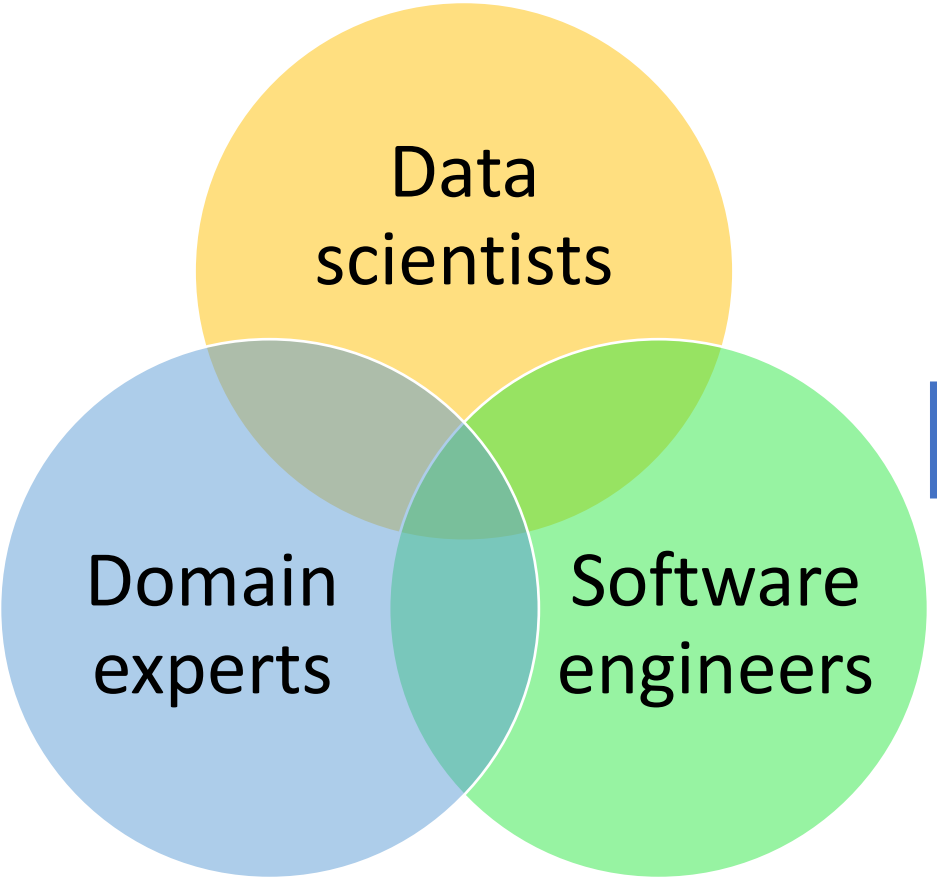
Address real-world problems effectively

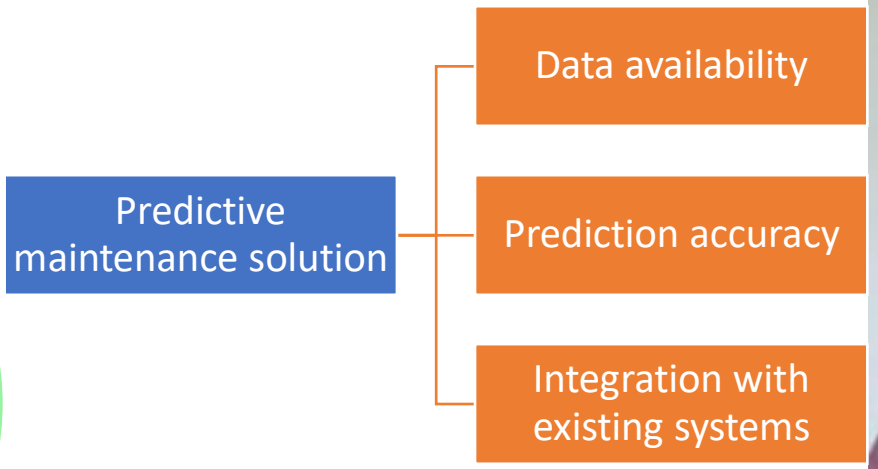
Problem Definition and Requirements Gathering

DOMAIN EXPERTS FROM THE MANUFACTURING FACILITY ARTICULATING

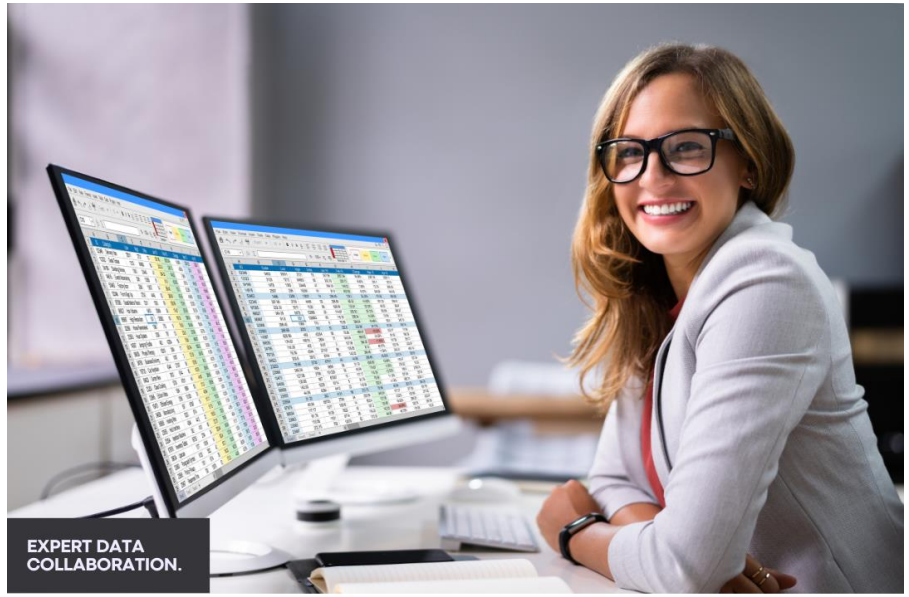
PROBLEM OF UNPLANNED EQUIPMENT DOWNTIME AND ITS IMPACT ON PRODUCTION

Problem Definition and Requirements Gathering



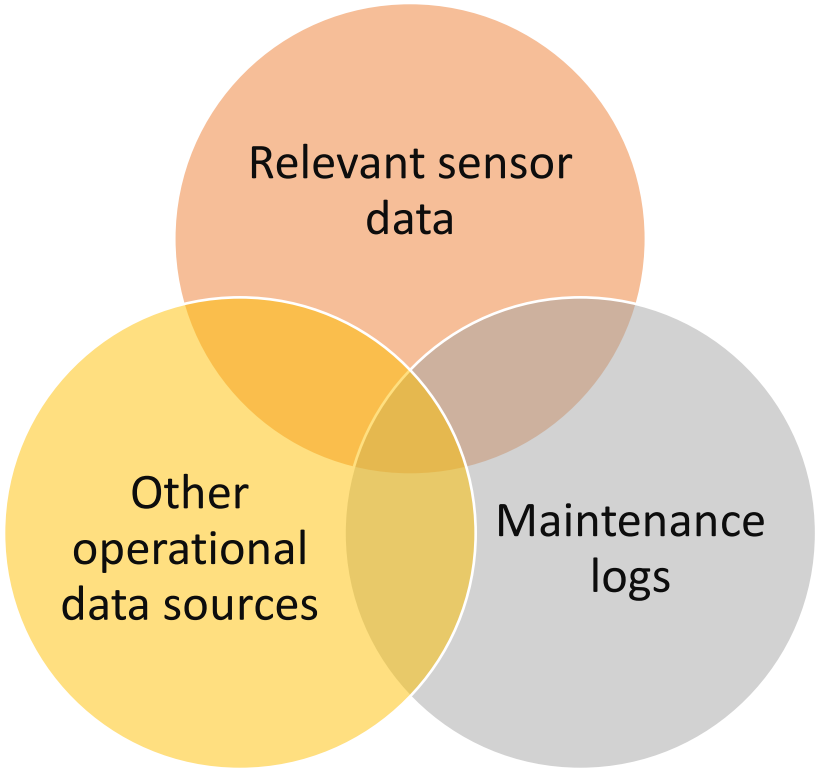


Data Collection and Preprocessing



Data scientists collaborated with domain experts.

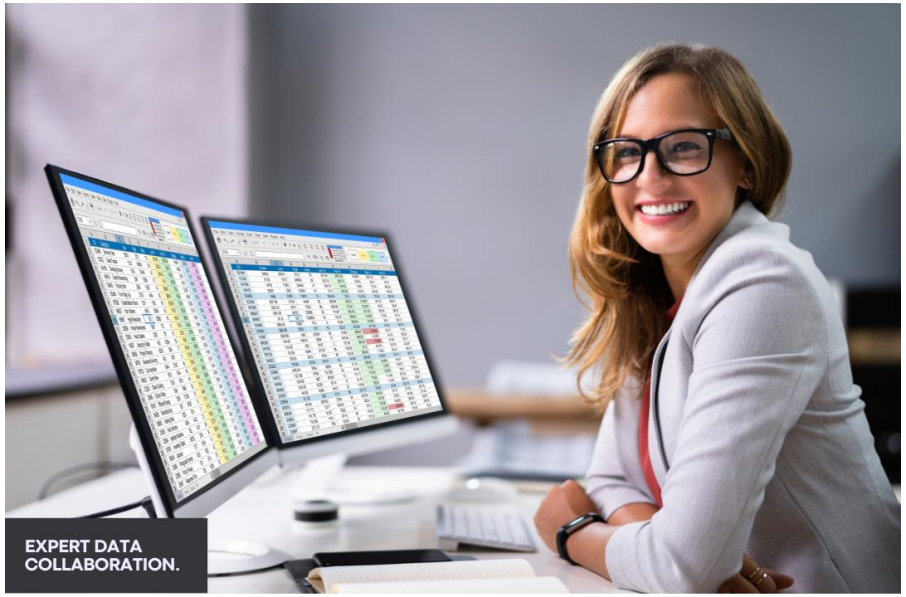
This collaboration enhanced insights and drove innovation in the field.



Data Collection and Preprocessing

Software engineers assisted in setting up data pipelines to collect, preprocess, and store the data in a format suitable for analysis

Feature Engineering and Model Development



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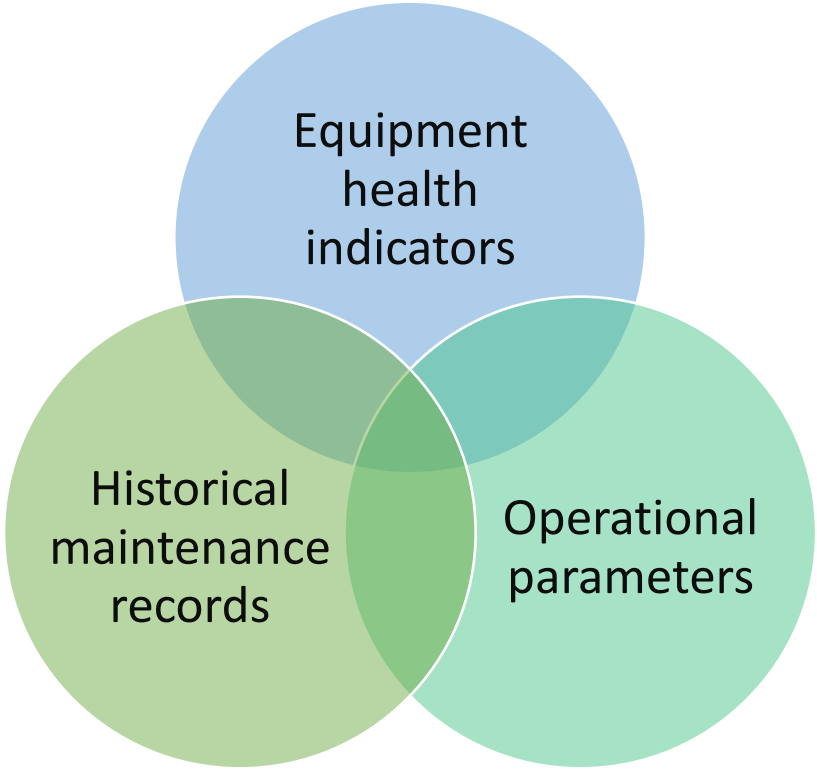
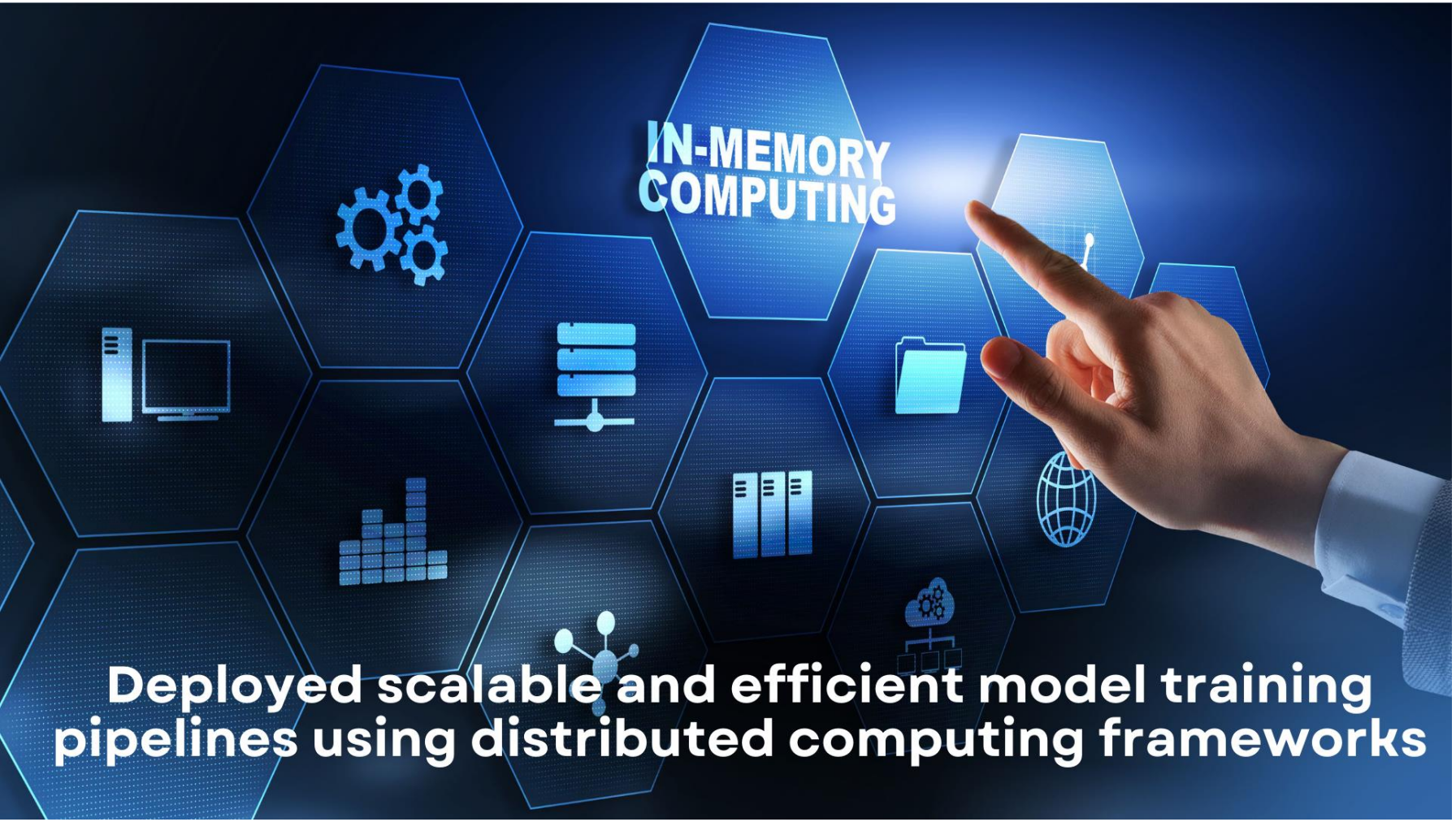


Feature Engineering and Model Development

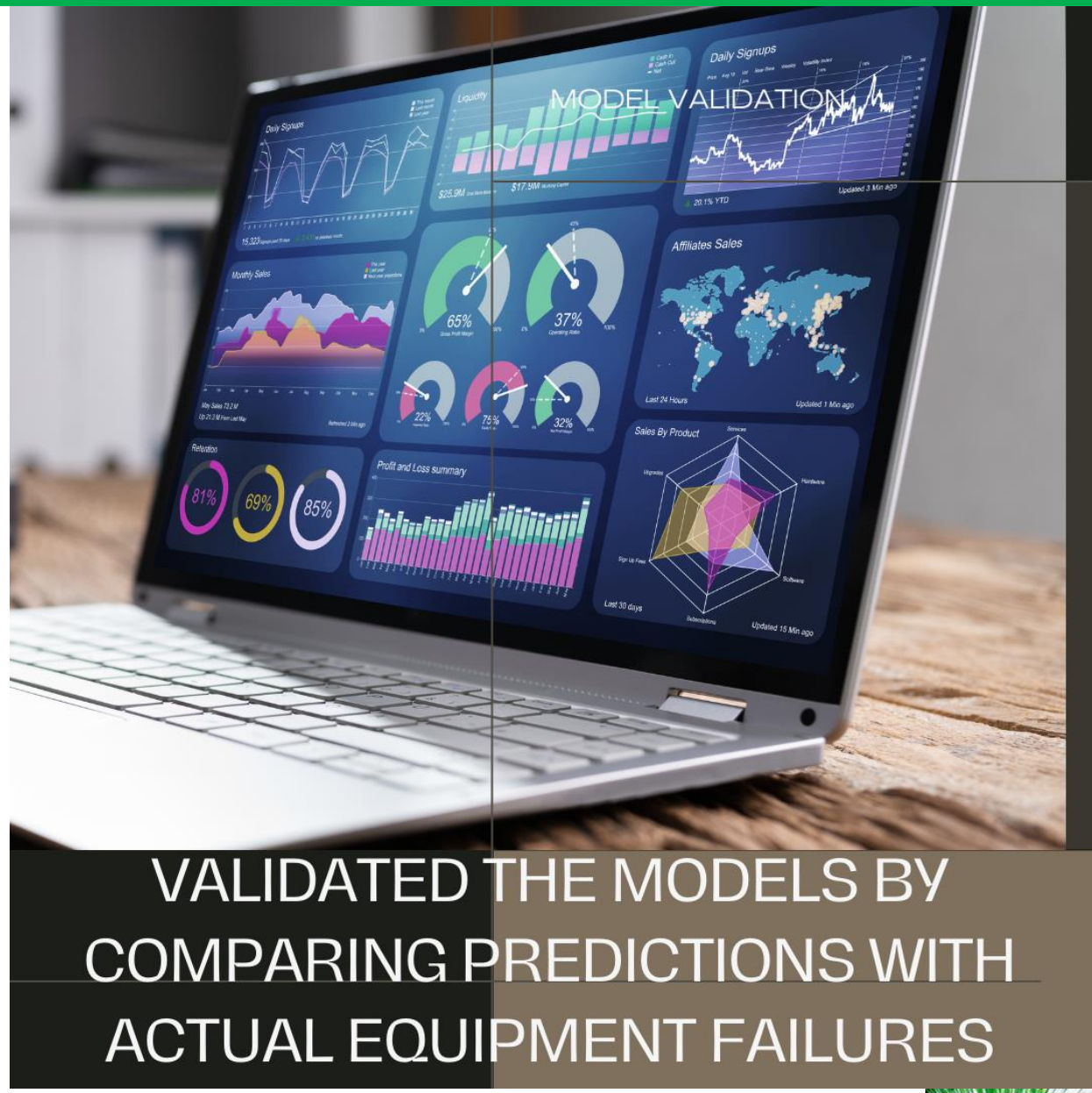
Machine learning algorithms and models to predict equipment failures

- Logistic regression
- Random forests
- Deep learning models.

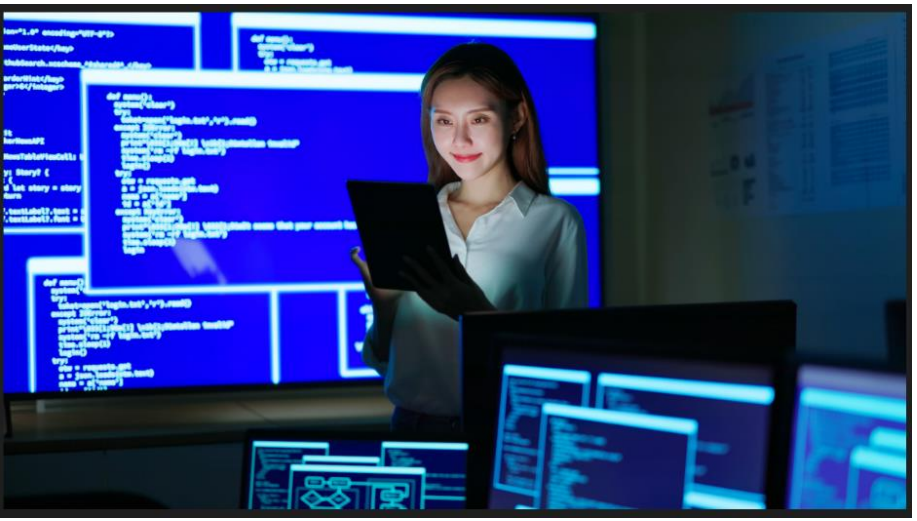
Feature Engineering and Model Development

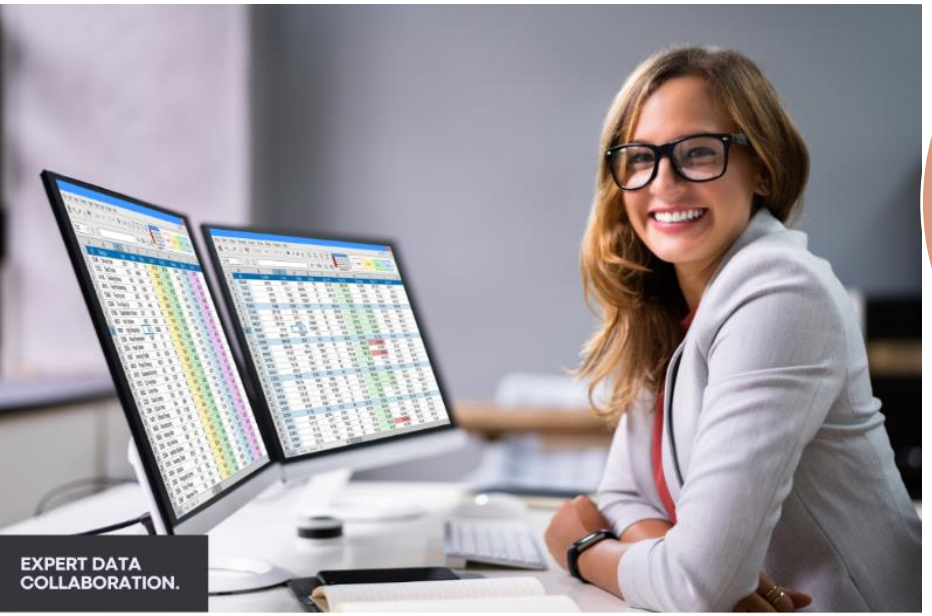


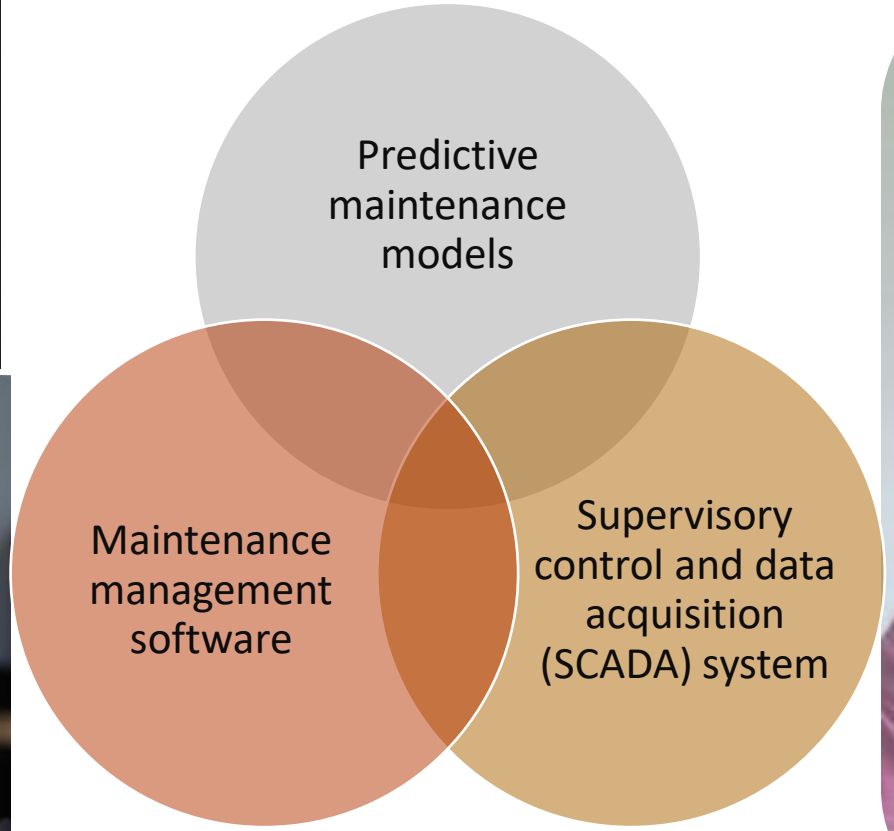
Prototyping and Validation



Integration and Deployment







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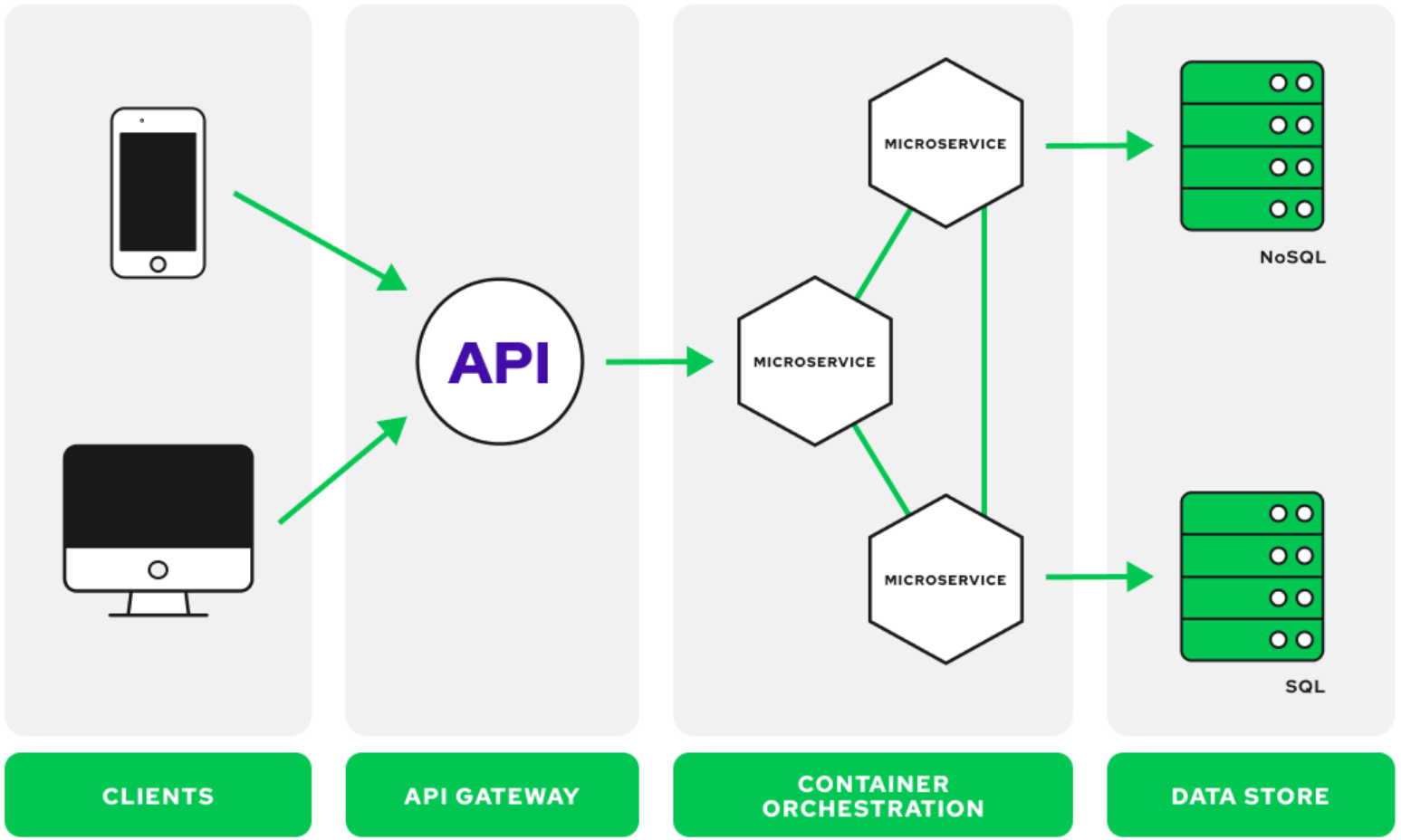
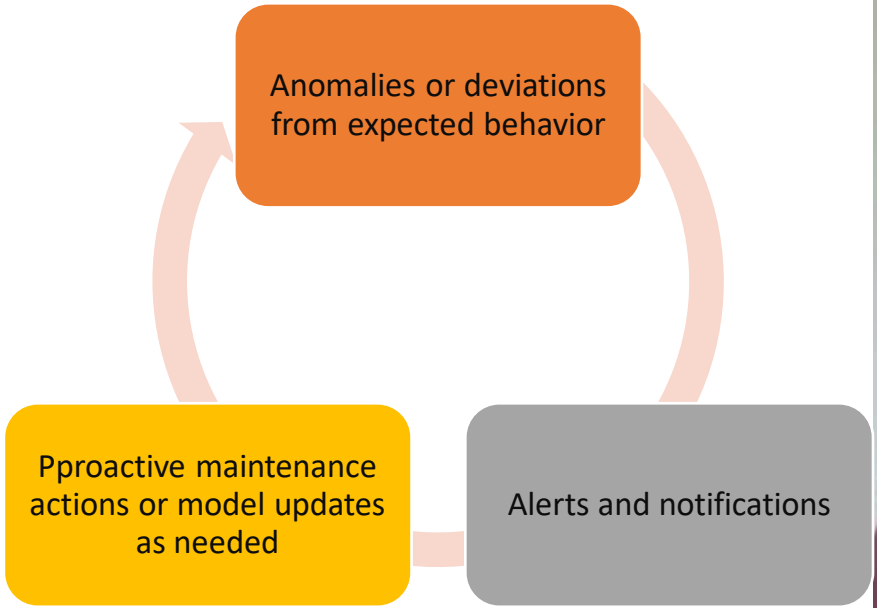
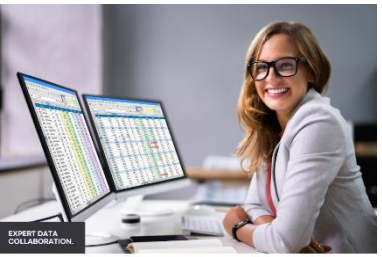


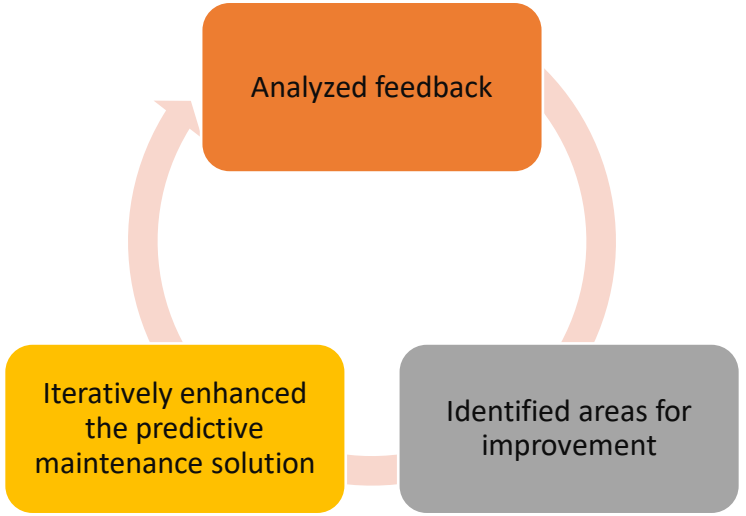
Monitoring and Maintenance

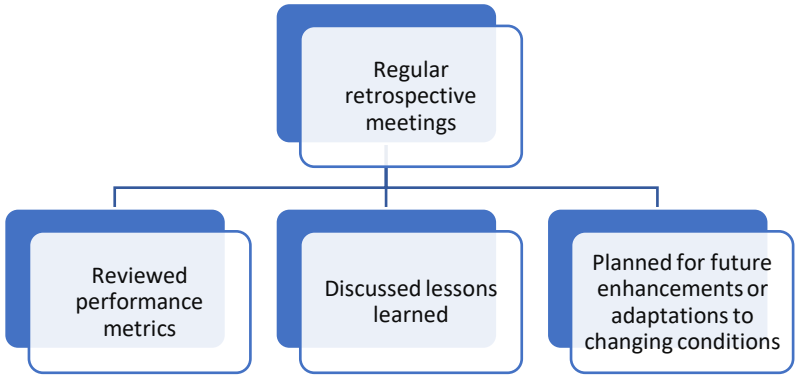
Monitoring model performance, data quality, and drift.



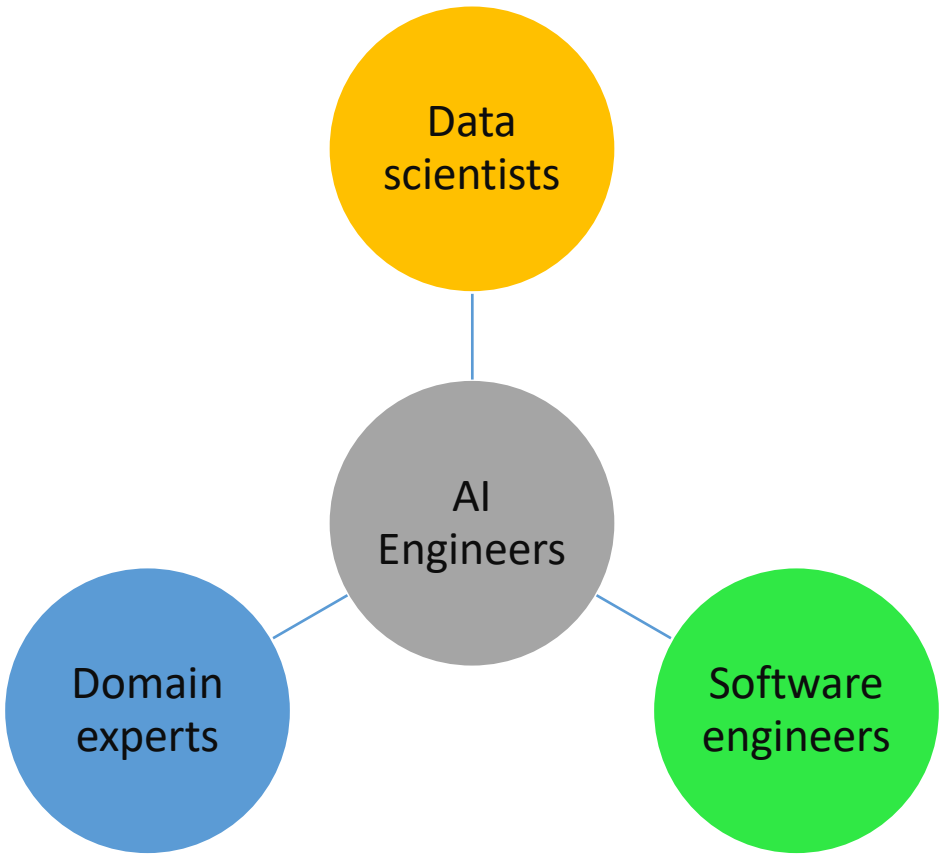
Continuous Improvement







An example of how to collaborate with data scientists, software engineers, and domain experts

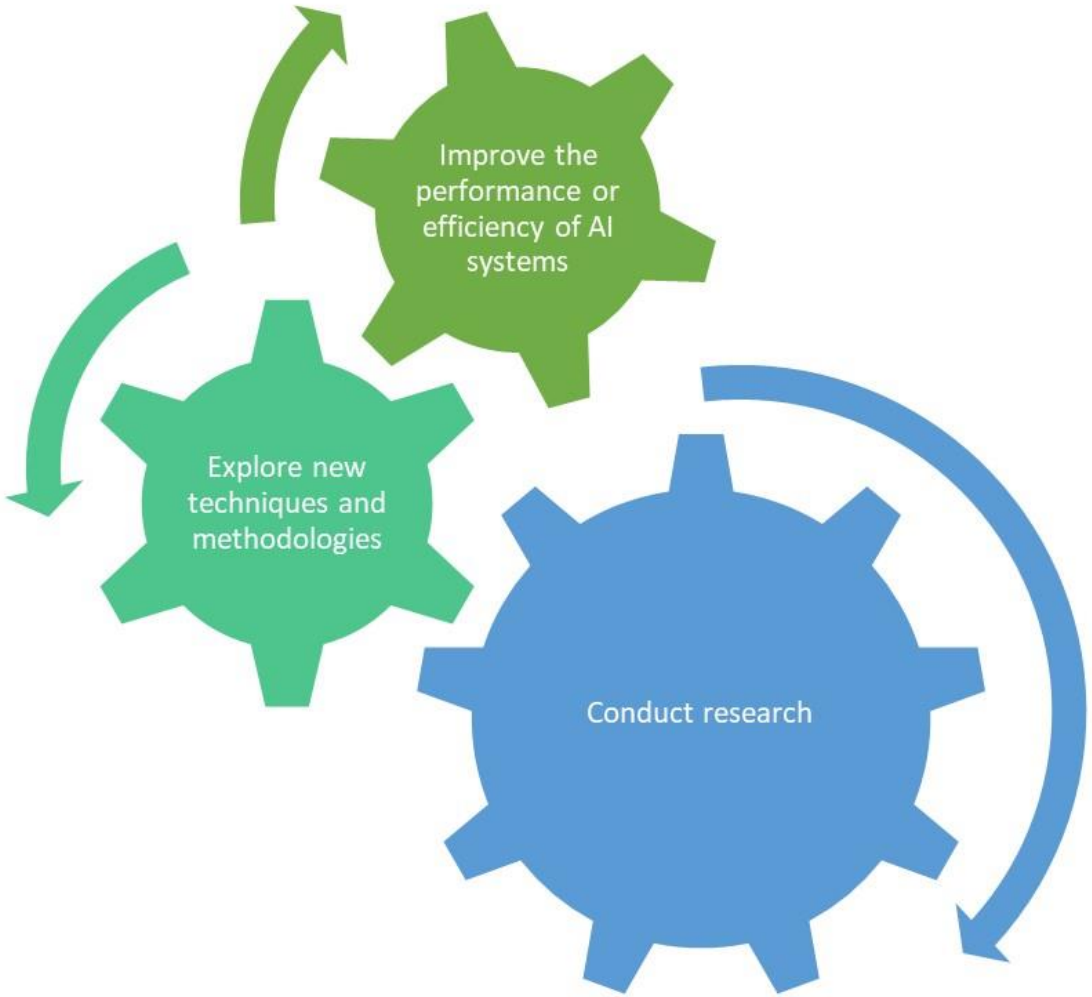


Develop comprehensive AI solutions

Address real-world problems effectively

What is next?

Research and Innovation



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Collaboration III